Amendments to the Claims:

1. (Currently Amended) ~~Method for managing a communication between a first network element and a second network element, wherein~~ A method comprising:

~~the communication is performed via a network on a packet basis,~~

~~acknowledgment messages acknowledging receipt of packets are returned to the network element having sent these packets, and~~

maintaining a congestion control, the congestion control ~~is performed which~~ variably defining ~~defines~~ an allowable number of packets which can be sent in a packet-based communication between a first network element and a second network element before receipt of acknowledgment messages for ~~these~~ sent packets, wherein said allowable number of packets is reduced in case of packet loss during transmission; [[,]]

~~wherein, when the first network element performs a hand-over and sends a message informing the network or a network element on the hand-over, the network or network element~~

receiving a message indicating a handover of the first network element; and

~~changes~~ changing, in response to the message, the congestion control to provide faster recovery rate of said allowable number after handover as compared to the recovery rate of said allowable number after a packet loss not caused by handover conditions, wherein said allowable number was reduced due to the handover.

2. (Currently Amended) Method according to claim 1, wherein:

maintaining the congestion control ~~provides~~ comprises maintaining a congestion window of variable size, the size of the congestion window defining said allowable number of packets which can be sent before receipt of acknowledgment messages for ~~these~~ the sent packets, and the size being controlled dependant on the number of sent packets for which no acknowledgment messages have been received so that the window size is reduced in case of packet loss during transmission[[,]]; and

~~wherein, when the first network element performs a hand-over and sends a message informing the network or a network element on the hand-over, the network or network element changes~~ changing the congestion control comprises changing the

congestion window size control to provide faster recovery rate of the window size after handover as compared to the recovery rate of the window size after packet loss.

3. (Currently Amended) Method according to claim 1, wherein maintaining said congestion control ~~is performed in at least one of the first and~~ comprises maintaining said congestion control at the second network element[[s]].

4. (Currently Amended) Method according to claim 1, wherein the first network element [[is]] comprises a mobile node which, when moving from one subnet into another foreign subnet, acquires a care-of address, and sends said message to its home network and/or to a correspondent node informing the network or node on the care-of-address.

5. (Currently Amended) Method according to claim 1, wherein said message [[is]] comprises a "Binding Update" message.

6. (Currently Amended) Method according to claim 1, wherein ~~said second network element comprises~~ changing the congestion control comprises invoking a fast retransmit and fast recovery algorithm so as to provide said faster recovery rate~~, wherein, when the message is sent from the first network element to the second network element, the second network element, when receiving the message, triggers the invocation of said fast retransmit and fast recovery algorithm~~.

7. (Currently Amended) Method according to claim 1, wherein said first network element comprises a fast retransmit and fast recovery algorithm so as to provide ~~said~~ a faster recovery rate, and is ~~adapted~~ configured to trigger, when generating said message, ~~the~~ invocation of said fast retransmit and fast recovery algorithm.

8. (Currently Amended) Method according to claim 1, wherein changing

the congestion control comprises ~~the faster recovery rate includes a step of~~ increasing the size of a congestion window in a step-wise manner.

9. (Currently Amended) Method according to claim 8, wherein increasing the size of the congestion window comprises increasing the size of the congestion window in a [[is]] step-wise manner ~~increased~~ to a size 20% to 100% of the size of the congestion value before the congestion window was reduced due to ~~start of~~ the handover.

10. (Currently Amended) Method according to claim 9, wherein increasing the size of the congestion window in a step-wise manner comprises increasing the size of the congestion window [[is]] in a step-wise manner to a size ~~increased to~~ at least approximately 50% of the size of the congestion value before the congestion window was reduced due to ~~start of~~ the handover.

11. (Currently Amended) Method according to claim 1, wherein changing the congestion control comprises ~~the faster recovery rate is implemented by~~ increasing the size of a congestion window in a step-wise manner to a value lying in a range from more than a minimum window size up to, and including the size of the window before the window was reduced due to handover, and by subsequent ramp-like or exponential increase of the congestion window size.

12. (Currently Amended) Method according to claim 1, wherein changing the congestion control ~~includes~~ comprises increasing the size of a congestion window in an exponential manner up to a threshold value and a subsequent ramp-like increasing of the congestion window size, wherein the faster recovery rate is implemented by setting the threshold value to at least one-half of, and up to, the ~~previous value~~ size of the congestion window before the size of the congestion window was reduced due to ~~start of~~ the handover.

13. (Currently Amended) Method according to claim 1, wherein the second network element [[is]] comprises a correspondent node.

14. (Currently Amended) Method according to claim 1, wherein ~~at least one of the first and second network elements comprises a congestion control means, and wherein when generating or receiving said message, the first and/or second network element informs its~~ changing the congestion control comprises informing congestion control means which in response triggers the invocation of a fast retransmit and fast recovery algorithm.

15. (Currently Amended) Method according to claim 1, wherein ~~at least one of the first and second network elements comprises a congestion control means, wherein the network element when generating or receiving said message, sends~~ changing the congestion control comprises sending a signal to [[the]] congestion control means, the signal indicating to the congestion control means that the congestion control is to be changed so as to provide said faster recovery rate.

16. (Currently Amended) Method according to claim 15, wherein the signal is implemented by duplicating ~~ACK~~ acknowledgement packets by an [[IP]] Internet Protocol layer function to a ~~TCP~~ Transmission Control Protocol layer function.

17. (Currently Amended) Method according to claim 1, wherein the communication between the first and second network elements ~~is an~~ comprises a Mobile Internet Protocol version 6-based ~~Mobile IPv6-based~~ communication.

18. (Currently Amended) System comprising: ~~for managing a communication between a first network element and a second network element, wherein~~

a first network element; and

a second network element;

wherein the first network element is configured to:

engage in a packet-based communication with the second network element;

cause transmission of acknowledgement messages to the second network element to acknowledge receipt of packets sent by the second network element in the packet-based communication;

direct transmission of a message indicating a handover of the first network element in response to performance of a handover by the first network element; and

wherein the second network element is configured to:

maintain a congestion control, the congestion control variably defining an allowable number of packets which can be sent in the packet-based communication before receipt of acknowledgment messages for the sent packets, wherein said allowable number of packets is reduced in case of packet loss during transmission;

receiving the message indicating a handover of the first network element; and

change, in response to the message, the congestion control to provide faster recovery rate of said allowable number after handover as compared to the recovery rate of said allowable number after a packet loss not caused by handover conditions, wherein said allowable number was reduced due to the handover.

~~the communication is performed via a network on a packet basis, and acknowledgment messages acknowledging receipt of packets are returned to the network element having sent these packets, comprising~~

~~congestion control means for performing a congestion control which variably defines an allowable number of packets which can be sent before receipt of acknowledgment messages for these packets, wherein said allowable number of packets is reduced in case of packet loss during transmission, wherein, when the first network element performs a hand-over and sends a message informing the network or a network element on the hand-over, the congestion control means changes the congestion control~~

~~to provide faster recovery rate of said allowable number after handover as compared to the recovery rate of said allowable number after packet loss.~~

19 (Currently Amended) System according to claim 18, wherein:

the second network element is configured to maintain the congestion control ~~means provides~~ by maintaining a congestion window of variable size, the[[,]] size of the congestion window defining said allowable number of packets which can be sent before receipt of acknowledgment messages for the sent ~~these~~ packets, and the size being controlled dependant on the number of sent packets for which no acknowledgment messages have been received so that the window size is reduced in case of packet loss during transmission; and[[,]]

~~wherein, when the first network element performs a hand-over and sends a message informing the network or a network element on the hand-over,~~ the second network element is configured to change the congestion control by changing ~~means is adapted to change~~ the congestion window size control to provide faster recovery rate of the window size after handover as compared to the recovery rate of the window size after packet loss.

20. (Currently Amended) System according to claim 18, wherein said first network element is further configured to:

maintain a congestion control, the congestion control variably defining an allowable number of packets which can be sent to the second network element in the packet-based communication before receipt of acknowledgment messages for the sent packets, wherein said allowable number of packets is reduced in case of packet loss during transmission; and

change, in response to transmission of the message, the congestion control to provide faster recovery rate of said allowable number after handover as compared to the recovery rate of said allowable number after a packet loss not caused by handover conditions, wherein said allowable number was reduced due to the handover.

~~means is provided in at least one of the first and second network elements.~~

21. (Currently Amended) System according to claim 18, wherein the first network element [[is]] comprises a mobile node which, when moving from one subnet into another foreign subnet, acquires a care-of address, and sends said message to its home network informing the latter on the care-of-address.

22. (Currently Amended) System according to claim 18, wherein said message [[is]] comprises a "Binding Update" message.

23. (Currently Amended) System according to claim 18, wherein said second network element ~~comprises~~ is configured to change the congestion control by invoking a fast retransmit and fast recovery algorithm so as to provide said faster recovery rate~~, wherein, when the message is sent from the first network element to the second network element, the second network element, when receiving the message, triggers the invocation of said fast retransmit and fast recovery algorithm~~.

24. (Currently Amended) System according to claim [[18]] 20, wherein said first network element ~~comprises~~ is configured to change the congestion control by invoking a fast retransmit and fast recovery algorithm so as to provide said faster recovery rate~~, and is adapted to trigger, when generating said message, the invocation of said fast retransmit and fast recovery algorithm~~.

25. (Currently Amended) System according to claim 18, wherein the second network element is configured to change the congestion control by ~~the faster recovery rate includes a step of~~ increasing the size of a congestion window in a step-wise manner.

26. (Currently Amended) System according to claim 25, wherein increasing the size of the congestion window comprises increasing the size of the congestion window in a [[is]] step-wise manner ~~increased~~ to a size 20% to 100% of the size of the

congestion value before the congestion window was reduced due to ~~start of~~ the handover.

27. (Currently Amended) System according to claim 26, wherein increasing the size of the congestion window in a step-wise manner comprises increasing the size of the congestion window [[is]] in a step-wise manner to a size ~~increased to~~ at least approximately 50% of the size of the congestion value before the congestion window was reduced due to ~~start of~~ the handover.

28. (Currently Amended) System according claim 18, wherein the second network element is configured to change the congestion control by ~~the faster recovery rate is implemented by~~ increasing the size of a congestion window in a step-wise manner to a value lying in a range from more than a minimum window size up to, and including the size of the window before the window was reduced due to handover, and by subsequent ramp-like or exponential increase of the congestion window size.

29. (Currently Amended) System according to claim 18, wherein the second network element is configured to change the congestion control ~~includes~~ by increasing the size of a congestion window in an exponential manner up to a threshold value and a subsequent ramp-like increasing of the congestion window size, wherein the faster recovery rate is implemented by setting the threshold value to at least one-half of, and up to, the ~~previous value~~ size of the congestion window before the size of the congestion window was reduced due to ~~start of~~ the handover.

30. (Currently Amended) System according to claim 18, wherein the second network element [[is]] comprises a correspondent node.

31. (Currently Amended) System according to claim 18, wherein ~~at least one of~~ the ~~first and~~ second network element[[s]] comprises a congestion control means, and wherein ~~when generating or receiving said message,~~ the ~~first and/or~~ second network element is configured to change the congestion control by informing the ~~informs its~~ congestion control means which in response triggers ~~the~~ invocation of a fast

retransmit and fast recovery algorithm.

32. (Currently Amended) System according to claim 18, wherein ~~at least one of~~ the ~~first and~~ second network element[[s]] comprises a congestion control means, and wherein the second network element is configured to change the congestion control by sending ~~when generating or receiving said message, sends~~ a signal to the congestion control means, the signal indicating to the congestion control means that the congestion control is to be changed so as to provide said faster recovery rate.

33. (Currently Amended) System according to claim 32, wherein the signal is implemented by duplicating ~~ACK~~ acknowledgement packets by an [[IP]] Internet Protocol layer function to a ~~TCP~~ Transmission Control Protocol layer function.

34. (Currently Amended) System according to claim 18, wherein the communication between the first and second network elements ~~is an~~ comprises a Mobile Internet Protocol version 6-based ~~Mobile IPv6-based~~ communication.

35. (Currently Amended) An apparatus comprising at least one processor and at least one memory storing computer program code, wherein the at least one memory and stored computer program code are configured to, with the at least one processor, cause the apparatus to at least:

maintain a congestion control, the congestion control variably defining an allowable number of packets which can be sent in a packet-based communication between the apparatus and a network element before receipt of acknowledgment messages for sent packets, wherein said allowable number of packets is reduced in case of packet loss during transmission;

receive a message indicating a handover of the network element; and

change, in response to the message, the congestion control to provide faster recovery rate of said allowable number after handover as compared to the recovery rate of said allowable number after a packet loss not caused by handover conditions, wherein said allowable number was reduced due to the handover.

~~Network element to be used in a system for managing a communication between network elements, preferably as defined in claim 18, wherein the communication is performed via a network on a packet basis, and acknowledgment messages acknowledging receipt of packets are returned to the network element having sent these packets, comprising~~

~~congestion control means for performing a congestion control which variably defines an allowable number of packets which can be sent before receipt of acknowledgment messages for these packets, wherein said allowable number of packets is reduced in case of packet loss during transmission, wherein, when the network element performs a hand-over and sends a message informing the network or a network element on the hand-over, the congestion control means changes the congestion control to provide faster recovery rate of said allowable number after handover as compared to the recovery rate of said allowable number after packet loss.~~

36. (Currently Amended) ~~Network element according to~~ The apparatus of claim 35, wherein the at least one memory and stored computer program code are configured to, with the at least one processor, cause the apparatus to:

~~wherein~~ maintain the congestion control ~~means provides~~ by maintaining a congestion window of variable size, the size of the congestion window defining said allowable number of packets which can be sent before receipt of acknowledgment messages for ~~these~~ the sent packets, and the size being controlled dependant on the number of sent packets for which no acknowledgment messages have been received so that the window size is reduced in case of packet loss during transmission; and[[,]]

~~wherein, when the network element performs a hand-over and sends a message informing the network or a network element on the hand-over,~~ change the congestion control ~~means changes~~ by changing the congestion window size control to provide faster recovery rate of the window size after handover as compared to the recovery rate of the window size after packet loss.

37. (Currently Amended) ~~Network element according to~~ The apparatus of claim 35, wherein the at least one memory and stored computer program code are configured to, with the at least one processor, cause the apparatus to change the congestion control by invoking ~~said network element comprises~~ a fast retransmit and fast recovery algorithm so as to provide said faster recovery rate~~, and is adapted to trigger, when generating said message, the invocation of said fast retransmit and fast recovery algorithm~~.

38. (Currently Amended) ~~Network element according to~~ The apparatus of claim 35, wherein the at least one memory and stored computer program code are configured to, with the at least one processor, cause the apparatus to change the congestion control by ~~the faster recovery rate includes a step of~~ increasing the size of a congestion window in a step-wise manner~~, wherein the size of the congestion window is step-wise increased~~ to a size 20% to 100% of the size of the congestion value before the congestion window was reduced due to ~~start of~~ the handover.

39. (Currently Amended) ~~Network element according to~~ The apparatus of claim [[37]] 38, wherein increasing the size of the congestion window in a step-wise manner comprises increasing the size of the congestion window [[is]] in a step-wise manner to a size ~~increased to~~ at least approximately 50% of the size of the congestion value before the congestion window was reduced due to ~~start of~~ the handover.

40. (Currently Amended) ~~Network element according to~~ The apparatus of claim 35, wherein the at least one memory and stored computer program code are configured to, with the at least one processor, cause the apparatus to change the congestion control ~~includes~~ by increasing the size of a congestion window in an exponential manner up to a threshold value and a subsequent ramp-like increasing of the congestion window size, wherein the faster recovery rate is implemented by setting the threshold value to at least one-half of, and up to, ~~the previous value~~ a size of the congestion window before the congestion window was reduced due to ~~start of~~ the

handover.

41. (Currently Amended) ~~Network element according to~~ The apparatus of claim 35, wherein the apparatus further ~~network element~~ comprises a congestion control means, and wherein the at least one memory and stored computer program code are configured to, with the at least one processor, cause the apparatus to change the congestion control by informing the ~~when generating or receiving said message, the network element informs its~~ congestion control means which in response triggers [[the]] invocation of a fast retransmit and fast recovery algorithm.

42. (Currently Amended) ~~Network element according to~~ The apparatus of claim 35, wherein the apparatus further ~~network element~~ comprises a congestion control means, wherein the ~~network element~~ the at least one memory and stored computer program code are configured to, with the at least one processor, cause the apparatus to change the congestion control by sending ~~when generating or receiving said message, sends~~ a signal to the congestion control means, the signal indicating to the congestion control means that the congestion control is to be changed so as to provide said faster recovery rate.

43. (Currently Amended) ~~Network element according to~~ The apparatus of claim 42, wherein the signal is implemented by duplicating ~~ACK~~ acknowledgement packets by an [[IP]] Internet Protocol layer function to ~~aTCP~~ a Transmission Control Protocol layer function.